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WASHINGTON, DC 20037				
EXAMINER				
IPPOLITO RAUSCH, NICOLE				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,397

Applicant(s)

MARTIN, FRANCOIS

Examiner

NICOLE IPPOLITO RAUSCH

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 4-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 4-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date 9/7/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: page 6 lines 6-8 "The method and device of the present invention provide great measurement flexibility and precision, and also make it possible..." should be "The method and device of the present invention provides great measurement flexibility and precision, and also makes it possible..." , and page 6 line 16 "In a first way..." should be "In a first embodiment...".

Appropriate correction is required.

Information Disclosure Statement

2. The information disclosure statement filed 9/1/2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. In particular, DE19631654, GB1095056 and the two pieces of NPL which are *not* the ISR were not provided, in any form, abstract or otherwise.

Claim Objections

3. Claims 4-7 and 11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim may *not* depend from other multiple

dependent claim(s). See MPEP § 608.01(n). Accordingly, the claims 4-7 and 11 have not been further treated on the merits.

4. Claims 8-10 are objected to under 37 CFR 1.75(c) as being in improper form because they depend from a non-considered improperly multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 8-10 have not been further treated on the merits.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1, 3-4 and 6-12 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 7291836 (which shares an assignee). Although the conflicting claims are not identical, they are not patentably distinct from each other because the major difference between the

instant application and the '836 patent is that in the instant application "at least some of the oil contained within said gases is separated, collected and returned to the oil sump" whereas no claim of this is made in the '836 patent. However, this would have been obvious, as this oil-return feature is standard in internal combustion engines to ensure that as little oil as possible is lost to the atmosphere, reducing both oil loss as well as atmospheric pollution from, i.e., automobiles.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange et al. (U.S. Patent Number 3471696, from hereinafter "Lange") in view of Tanaka (U.S. Patent Application Publication Number 20020129586, from hereinafter "Tanaka") in further view of Vitale et al. (U.S. Patent Number 6294389, from hereinafter "Vitale").

9. In regards to claims 1 and 12, Lange teaches that the lubricating oil for an engine is labeled by introducing at least one radioactive trace into the oil (see, i.e. claim 1). Lange further teaches that the blowby gases leaving the engine block and laden with lubricating oil are made to pass through an oil separation system where at least some of the oil contained within said gases is separated (FIGS. 1 and 3, engine 10, tank 14, exhaust tube 16, diverter valve 18, tube 24, extraction tower 24, columns 4-6 lines 5-8).

Lange further teaches that the oil not separated from the blowby gases coming from the oil separation system is trapped in an oil trapping device located downstream of said oil separation system (FIG. 1, sample holder 44, column 4 lines 45-55). Lange finally teaches that the radioactivity of the oil not separated in the oil separation system and retained in the oil trapping device is measured using a detector which is placed near the oil trapping device and is sensitive to the ionizing radiation emitted by the radioactive tracer(s) (FIG. 1, scintillation detector 46, scaler 48).

In regards to claims 1 and 12, Lange fails to teach that some of the separated, collected oil is returned to the oil sump. Lange likewise fails to teach that the results of these measurements are sent to a computer capable of calculating the consumption of lubricating oil not separated in said separation system from these results.

Tanaka teaches that some of the separated, collected oil is returned to the oil sump (FIGS. 1 and 10, hollow case body 41, filter 43, crank case 14f, paragraphs 0060-0064).

In view of the teaching of Tanaka it would have been obvious to one of ordinary skill in the art at the time the invention was made that some of the separated, collected oil is returned to the oil sump. This oil-return feature is standard in internal combustion engines to ensure that as little oil as possible is lost to the atmosphere, reducing both oil loss as well as atmospheric pollution from, i.e., automobiles. Furthermore, the required sample size of oil for determining radioactivity may be comparatively small if the detector is sensitive enough. It would likewise be logical to retain only as much

radioactive oil as is required for determining an accurate presence of radiation within the sample.

In regards to claims 1 and 12, Lange as modified by Tanaka fails to teach that the results of these measurements are sent to a computer capable of calculating the consumption of lubricating oil not separated in said separation system from these results. However it would have arguably have been obvious, as it had been held that broadly providing automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. See in re Venner, 120 USPQ 192. Lange does teach calculating the consumption of lubricating oil not separated in said separation system, however, as computers were uncommon in 1969, such a calculation would have been done by hand from the values provided from the detector and the scaler.

Vitale teaches that the results of these measurements are sent to a computer capable of calculating the consumption of lubricating oil not separated in said separation system from these results (FIG. 1, PC 96, column 5 lines 35-50).

In view of the teaching of Vitale it would have been obvious to one of ordinary skill in the art at the time the invention was made that the results of these measurements are sent to a computer capable of calculating the consumption of lubricating oil not separated in said separation system from these results. As discussed previously, computers were not common at the time of Lange's invention and so he would have likely been reduced to calculating the oil consumption by hand. However, as a computer is more efficient, can maintain more decimal places and hence keep the

calculation more accurate, etc., it would be obvious to one of ordinary skill in the art to utilize the computer as a time-saving and accuracy maintaining device.

10. In regards to claim 13 Lange as modified by Tanaka and Vitale as discussed above fails to teach that the oil trapping device is designed in such a way that the pressure difference between the inlet and the outlet of the oil separation system is approximately the same as the value of this pressure difference in the absence of said oil trapping device.

However, Tanaka does teach that the oil trapping device is designed in such a way that the pressure difference between the inlet and the outlet of the oil separation system is approximately the same as the value of this pressure difference in the absence of said oil trapping device (FIGS. 1 and 10, hollow case body 41, filter 43, crank case 14f, paragraphs 0060-0064, and paragraphs 0015-0016, 0022-0028 etc., all speak about the filter not changing the pressure difference).

In view of this further teaching of Tanaka it would have been obvious to one of ordinary skill in the art at the time the invention was made that the oil trapping device is designed in such a way that the pressure difference between the inlet and the outlet of the oil separation system is approximately the same as the value of this pressure difference in the absence of said oil trapping device. As discussed by Tanaka, failure to do so leads to engine inefficiency, as well as the increased risk of the system failing due to an oil leak, etc. Clearly it is advantageous to prevent such an oil leak that would significantly increase the engine oil consumption above what it should nominally be required to be.

11. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange as modified by Tanaka and Vitale as applied to claim 1 above, and further in view of Borza et al. (U.S. Patent Number 4406778, from hereinafter "Borza"). The teachings of Lange, Tanaka and Vitale have been discussed above.

In regards to claim 2, Lange as modified by Tanaka and Vitale fails to teach that the oil separation system consists of several separators connected in series or in parallel. However, it would have been obvious, since it has been held that mere duplication of essential working parts of the device (in this instance the oil separators) involves only routine skill in the art. Please see *St. Regis paper Co. v. Bemis Co.*, 193 USPQ 8.

Borza teaches that the oil separation system consists of several separators connected in series or in parallel (see claim 1, specifically indent (e)).

In view of the teaching of Borza it would have been obvious to one of ordinary skill in the art at the time the invention was made that the oil separation system consists of several separators connected in series or in parallel. As Borza claims, this allows for a more complex separation based on the viscosities. Barring that, it would be obvious as this may allow for a more thorough separation of the oil (i.e. multiple small steps are often more complete than attempting the same separation in one step), something that would clearly have been obvious.

12. In regards to claim 3, Lange teaches that the blowby gases coming from the trapping device are released into the atmosphere (FIG. 1, tubes 20 and 32, both serve to vent the gases at different steps in the process, column 4 lines 5-32).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE IPPOLITO RAUSCH whose telephone number is (571)270-7449. The examiner can normally be reached on Monday through Thursday 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. I./
Examiner, Art Unit 2881

/ROBERT KIM/
Supervisory Patent Examiner, Art Unit 2881